IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of the claims in the application:

1. (Original) An RFID transponder, comprising:

an RF front end adapted to receive an interrogating RF signal;

an analog circuit coupled to said RF front end and adapted to recover analog signals from said received interrogating RF signal, said analog circuit providing state information defining a desired state of said RFID transponder corresponding to said analog signals;

a digital state machine coupled to said analog circuit and adapted to execute at least one command in accordance with said state information;

a memory coupled to said digital state machine and adapted to store and retrieve digital data responsive to said at least one command executed by said digital state machine;

a power capacitor coupled to said analog circuit and deriving a voltage rectified from said interrogating RF signal to charge said power capacitor, said power capacitor thereby providing electrical power for said analog circuit, said digital state machine and said memory; and

a state holding cell coupled to said digital state machine and being adapted to maintain said state information during a loss in power provided by said power capacitor due to lapse in receipt of said interrogating RF signal by said RF front end.

2. (Original) The RFID transponder of Claim 1, wherein said state holding cell further comprises an OR gate having a first input terminal operatively coupled to receive a voltage corresponding to said state information, a second input terminal coupled to a capacitor via a voltage comparator circuit having an input terminal and an output terminal, and an output terminal providing said state information to said digital state machine, said capacitor being charged by said voltage.

3. (Original) The RFID transponder of Claim 2, further comprising a diode coupled between said first input terminal and said input terminal of said voltage comparator circuit.

4. (Original) The RFID transponder of Claim 3, wherein said diode further comprises a Schottky diode.

5. (Original) The RFID transponder of Claim 3, wherein said diode further comprises a p-n junction diode.

6. (Original) The RFID transponder of Claim 2, further comprising a latch coupled between said first input terminal and said output terminal of said OR gate, said latch being operative to restore said voltage corresponding to said state information to said first input terminal following said temporary lapse in receipt of said interrogating RF signal.

7. (Original) The RFID transponder of Claim 1, wherein said memory further comprises an EEPROM device.

8. (Original) The RFID transponder of Claim 1, wherein said state information defines plural operating states of said digital state machine.

9. (Original) An RFID transponder, comprising:

means for receiving an interrogating RF signal;

means for recovering analog signals from said received interrogating RF signal and providing state information defining a desired state of said RFID transponder corresponding to said analog signals;

means for executing at least one command in accordance with said state information;

means for storing and retrieving digital data responsive to said at least one command;

means for providing electrical power for said RFID transponder derived from said interrogating RF signal; and

means for maintaining said state information during a temporary lapse in receipt of said interrogating RF signal.

10. (Original) The RFID transponder of Claim 9, wherein said receiving means further comprises an RF front end.

11. (Original) The RFID transponder of Claim 9, wherein said recovering means further comprises an analog circuit.

12. (Original) The RFID transponder of Claim 9, wherein said executing means further comprises a digital state machine.

13. (Original) The RFID transponder of Claim 12, wherein said state information defines plural operating states of said digital state machine.

14. (Original) The RFID transponder of Claim 9, wherein said storing and retrieving means further comprises a memory device.

15. (Original) The RFID transponder of Claim 14, wherein said memory device further comprises an EEPROM device.

16. (Amended) The RFID transponder of Claim 9, wherein said maintaining means further comprises an OR gate ~~have~~ having a first input terminal operatively coupled to receive a voltage corresponding to said state information, a second input terminal coupled to a capacitor, and an output terminal providing said state information, said capacitor being charged by said voltage.

17. (Currently Amended) The RFID transponder of Claim 16, further comprising a diode coupled between said first input terminal and said input terminal of said ~~voltage comparator circuit~~ OR gate.

18. (Original) The RFID transponder of Claim 17, wherein said diode further comprises a Schottky diode.

19. (Original) The RFID transponder of Claim 17, wherein said diode further comprises a p-n junction diode.

20. (Original) The RFID transponder of Claim 16, further comprising a latch coupled between said first input terminal and said output terminal of said OR gate, said latch being operative to restore said voltage corresponding to said state information to said first input terminal following said temporary lapse in receipt of said interrogating RF signal.

21. (Original) A method for operating an RFID transponder, comprising the steps of:

receiving an interrogating RF signal;

recovering analog signals from said received interrogating RF signal and providing state information defining a desired state of said RFID transponder corresponding to said analog signals;

executing at least one command in accordance with said state information;

storing and retrieving digital data responsive to said at least one command;

providing electrical power for said RFID transponder derived from said interrogating RF signal; and

maintaining said state information during a temporary lapse in receipt of said interrogating RF signal.

22. (Original) The method of Claim 21, wherein said maintaining step further comprises receiving a voltage corresponding to said state information, and charging a capacitor by said voltage.

23. (Original) The method of Claim 22, further comprising the step of preventing discharge of said capacitor during said temporary lapse in receipt of said interrogating RF signal.

24. (Original) The method of Claim 22, further comprising the step of restoring said voltage corresponding to said state information following said temporary lapse in receipt of said interrogating RF signal.